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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------|-------------|----------------------|---------------------|------------------|
| 10/694,018 | 10/28/2003 | Koichiro Itow | 2003_1489A | 3693 |
| 513 | 7590 | 02/07/2005 | | EXAMINER |
| | | | | HOANG, JOHNNY H |
| | | | ART UNIT | PAPER NUMBER |
| | | | | 3747 |

DATE MAILED: 02/07/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

| Office Action Summary | Application No. | Applicant(s) | |
|------------------------------|------------------------|---------------------|--|
| | 10/694,018 | ITOW ET AL. | |
| Examiner | Art Unit | | |
| Johnny H. Hoang | 3747 | | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) Responsive to communication(s) filed on 28 October 2003.

2a) This action is **FINAL**. 2b) This action is non-final.

3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) Claim(s) 1-26 is/are pending in the application.
4a) Of the above claim(s) _____ is/are withdrawn from consideration.
5) Claim(s) _____ is/are allowed.
6) Claim(s) 1-6, 9-12, 14-16, and 23-24 is/are rejected.
7) Claim(s) 7, 8, 13, 17-22, 25, and 26 is/are objected to.
8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) The specification is objected to by the Examiner.

10) The drawing(s) filed on 28 October 2003 is/are: a) accepted or b) objected to by the Examiner.

 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) All b) Some * c) None of:
1. Certified copies of the priority documents have been received.
2. Certified copies of the priority documents have been received in Application No. _____.
3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) Notice of References Cited (PTO-892)
2) Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 10/28/2003.

4) Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ .
5) Notice of Informal Patent Application (PTO-152)
6) Other: _____ .

DETAILED ACTION

Inventorship

1. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 1-6, 9-12, 14-16, and 23-24 are rejected under 35 U.S.C. 102(b) as being anticipated by Takamura (US 5,469,646).

Regarding claim 1, the reference of Takamura discloses a fine operation mode changeover device for a hydraulic excavator including the following subject matters: an engine control device for controlling an engine to move a matching point according to a load applied to the engine on an engine torque diagram having an axis representing an engine speed and an axis representing torque (see Figs. 5, 6, 8, and 9), wherein; a target torque line is set to pass through a fuel consumption minimum point, where a fuel consumption rate becomes minimum, or to pass through a vicinity of the fuel consumption minimum point on the engine torque

diagram, and the engine is controlled to match at a point on the target torque line (see abstract, and col. 1, line 30 through col. 2, line 15).

Regarding claims 3-4, 16, as discussed in claims 1.

Regarding claim 2, as discussed in claim 1, and the reference of Takamura further teaches an equivalent horsepower curve and an equivalent fuel consumption curve which are drawn on the torque T versus the engine rotation rate N plane where FC denotes the equivalent fuel consumption curve with the fuel consumption of 100% at the center (see Fig. 6, col. 6, line 28 through col. 10, line 2).

Regarding claims 14-15, as discussed in claims 1, and 2.

Regarding claims 5, as above rejections.

Regarding claims 6, as above rejections.

Regarding claims 9, and 12, as above rejections.

Regarding claims 10, and 23, as above rejections.

Regarding claims 11, and 24, as above discussions.

Allowable Subject Matter

4. Claims 7, 8, 13, 17-22, 25, and 26 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Regarding claims 7, 13, 17-21, 25, and 26, the following is a statement of reasons for the indication of allowable subject matter: the electric motor is operated when the matching point moves on the engine torque diagram in a direction that a load applied to the output shaft becomes large.

Regarding claims 8, and 22, the following is a statement of reasons for the indication of allowable subject matter: an upper limit line specifying a maximum injection amount of fuel is set

between an engine maximum torque line and the target torque line on the engine torque diagram; and the electric motor is operated when an injection amount corresponding to a difference between an instructed rotational speed and a real rotational speed exceeds the maximum injection amount specified by the upper limit line.

Conclusion

5. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Till (US 6,564,172 B1), Katakura et al (US 6,148,257), and Minowa et al (US 5,752,214).

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Johnny H. Hoang whose telephone number is (571) 272-4843. The examiner can normally be reached on Monday - Thursday (7:00Am-5: 30Pm).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Henry Yuen can be reached on (571) 272-4856.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

JHH
January 31, 2005

Johnny H. Hoang
Examiner
Art Unit 3747

Tony M. Argentbright
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